

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): MICHAEL HARVILLE

Confirmation No.:

Application No.:

Examiner:

Filing Date: Herewith

Group Art Unit:

Title: SEGMENTING VIDEO INPUT USING HIGH-LEVEL FEEDBACK



COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:  
☐ Statement under 37 CFR 1.97(e), or  
☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs
- ☐ under 37 CFR 1.97 (d) together with a:  
☐ Statement under 37 CFR 1.97(e), and  
☐ a petition under 37 CFR 1.97(d)(2), and  
☐ a \$180.00 petition fee set forth in 37 CFR 1.17(p).  
(Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Please charge to Deposit Account 08-2025 the sum of \$0.00 . At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

**CERTIFICATE OF HAND-DELIVERY**

I hereby certify that I am hand-delivering this paper or fee to the USPTO Office of Initial Patent Examination on the date indicated below and this paper or fee has been addressed to the Commissioner for Patents, Washington, D.C. 20231.

By Amy L. Hunt

Typed Name: Amy L. Hunt

Date: 12/10/01

Rev 10/01 (IDSXML)

Respectfully submitted,

MICHAEL HARVILLE

By [Signature]

Edouard Garcia

Attorney/Agent for Applicant(s)  
Reg. No. 38,461

Date: Dec. 7, 2001

Telephone No.: (650) 631-6591

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.

10017809-1

SERIAL NO.

APPLICANT

MICHAEL HARVILLE

FILING DATE

Herewith

GROUP

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |    | DOCUMENT<br>NUMBER | DATE          | NAME            |
|---------------------|----|--------------------|---------------|-----------------|
|                     | 1A | 6,263,088          | Jul. 17, 2001 | Crabtree et al. |
|                     | 1B | 6,249,613          | Jun. 19, 2001 | Crinon et al.   |
|                     | 1C | 6,141,433          | Oct. 31, 2000 | Moed et al.     |
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|                     | 1G |                    |               |                 |
|                     | 1H |                    |               |                 |
|                     | 1I |                    |               |                 |
|                     | 1J |                    |               |                 |
|                     | 1K |                    |               |                 |



## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT<br>NUMBER | DATE       | NAME           | TRANSLATION |    |
|--|----|--------------------|------------|----------------|-------------|----|
|  |    |                    |            |                | YES         | NO |
|  | 1L | WO 00/77735        | 21.12.2000 | Prakash et al. |             |    |
|  | 1M | WO 00/34919        | 15.06.00   | Gordon et al.  |             |    |
|  | 1N |                    |            |                |             |    |
|  | 1O |                    |            |                |             |    |
|  | 1P |                    |            |                |             |    |

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

|   |    |   |
|---|----|---|
| ✓ | 1Q | M. Harville, G. Gordon, J. Woodfill. "Foreground Segmentation Using Adaptive Mixture Models in Color and Depth." In Proceedings of the IEEE Workshop on Detection and Recognition of Events in Video, Vancouver, Canada, July 2001.                 |
| ✓ | 1R | A. Mittal, D. Huttenlocher. "Scene Modeling for Wide Area Surveillance and Image Synthesis." In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition, pp. 160-167, Hilton Head, South Carolina (United States), June 2000. |
| ✓ | 1S | K. Toyama, J. Krumm, B. Brumitt, B. Meyers. "Wallflower: Principles and Practice of Background Maintenance." In Proceedings of the International Conference on Computer Vision, pp.255-261, Corfu, Greece, Sept 1999.                               |

EXAMINER

DATE CONSIDERED

|   |                                      |            |
|---|--------------------------------------|------------|
| <b>FORM PTO-1449</b><br><br><b>LIST OF PATENTS AND PUBLICATIONS FOR<br/>APPLICANT'S INFORMATION DISCLOSURE<br/>STATEMENT</b><br><br>(Use several sheets if necessary) | ATTY. DOCKET NO.                     | SERIAL NO. |
|   | 10017809-1                           |            |
|   | APPLICANT<br><b>MICHAEL HARVILLE</b> |            |
|   | FILING DATE                          | GROUP      |
|   | Herewith                             |            |

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

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|---------------------|----|--------------------|------|------|
|                     | 2A |                    |      |      |
|                     | 2B |                    |      |      |
|                     | 2C |                    |      |      |
|                     | 2D |                    |      |      |
|                     | 2E |                    |      |      |
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|                     | 2H |                    |      |      |
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|--|----|--------------------|------|------|-------------|----|
|  |    |                    |      |      | YES         | NO |
|  | 2L |                    |      |      |             |    |
|  | 2M |                    |      |      |             |    |
|  | 2N |                    |      |      |             |    |
|  | 2O |                    |      |      |             |    |
|  | 2P |                    |      |      |             |    |

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|    |  |
|----|--|
| 2Q | T. Boulton, R. Micheals, X. Gao, P. Lewis, C. Power, W. Yin, A. Erkan. "Frame-Rate Omnidirectional Surveillance and Tracking of Camouflaged and Occluded Targets." At the web site <a href="http://fizbin.eecs.lehigh.edu/~tboulton/FRAME/">http://fizbin.eecs.lehigh.edu/~tboulton/FRAME/</a> , and on the CD (but not the printed version) of Proceedings of the IEEE ICCV99 Frame-rate Workshop, Corfu, Greece, Sept. 1999. |
| 2R | J. Orwell, P. Remagnino, G. Jones. "From Connected Components to Object Sequences." In Proceedings of the IEEE International Workshop on Performance Evaluation of Tracking and Surveillance, Grenoble, France, April 2000.  |
| 2S | K. Bhat, M. Saptharishi, P. Khosla. "Motion Detection and Segmentation Using Image Mosaics." In Proceedings of the IEEE International Conference on Multimedia and Expo 2000, New York, New York (United States), Aug. 2000.   |

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